Coalition for a Sustainable Delta

March 11, 2011

VIA E-MAIL

Phil Isenberg
Chair, Delta Stewardship Council
650 Capitol Mall
Sacramento, CA 95814
deltaplancomment@deltacouncil.ca.gov

Re: Comments on the First Staff Draft Delta Plan

Dear Chairman Isenberg:

The Coalition for a Sustainable Delta (Coalition) is writing to provide comments on the Delta Stewardship Council (Council) First Staff Draft Delta Plan (Draft Plan). It is our understanding that the Draft Plan is in the preliminary stages of development at this point, with multiple additional drafts planned for public release and comment. Accordingly, we focus our comments herein on highlighting topics that need further development, rather than commenting on specific changes to the language within the document.

Multiple sections of the Delta Plan, including chapters on science/adaptive management, financing, water quality, governance, and performance measures are not even included in the Draft Plan, making it difficult to provide significant substantive comments at this time. We hope that the Council intends to provide a more complete next draft to ensure that the public has the opportunity to thoroughly review and comment on all of the relevant sections of the Delta Plan.

Fundamentally, there are a number of components that are essential for a Delta Plan that will achieve the co-equal goals mandated by the Legislature that are currently lacking in the Draft Plan, which we discuss below.

First, the Delta Plan must articulate a clear vision for what the Delta should look like in the future; this likely involves limitations on resource use within the Delta in order to allow for long-term sustainability of the region. As acknowledged in the Draft Plan, the Delta ecosystem is "irreversibly changed" (p. 6-3) but the Draft Plan lacks a clear vision for the future Delta. In order to develop a vision for the Delta in the future, the Delta Plan must comprehensively examine the sustainability of certain land uses within the Delta, including agriculture and residential development. However desirable agriculture and open space are within the Delta, the Delta Plan must incorporate sustainable activities, including a comprehensive examination of the economic and

ecological sustainability of agriculture in the Delta. The challenges to sustainable agriculture in the Delta are many, including sea level rise, illegal diversions, subsidence, levee stability and impacts on water quality; these issues must be further investigated in order to develop the agricultural component of the Delta Plan. With respect to development within the Delta, the Draft Plan concludes that significant development has occurred within the Delta in the last four decades (p. 9-3), yet the Draft Plan fails to make any clear connection between increased development and the degraded Delta ecosystem. The land use planning component of the Delta Plan should provide a realistic vision for what the Delta will physically look like in the future, taking into account sea level rise as a result of climate change, likely development, and restoration/preservation activities, and, the Plan should contain enforceable land use planning mechanisms to ensure that additional development does not occur in sensitive areas within the Delta, including those areas that are significantly flood-prone or that provide important habitat for native species.

Second, the ecosystem restoration component of the Delta Plan should target habitat enhancement for native species. For example, based on ecological principles, native fish are likely to benefit from restoration of conditions more like the Delta in which they evolved, which includes increased availability of floodplain flows, tidal wetlands, and a more natural flow regime. More specifically, consideration should be given to more frequent floodplain flows in Yolo bypass, more natural flooding of Suisun Marsh, and a more variable salinity regime in the Delta, which we were pleased to see included as a concept in the Draft Plan.

Third, we were disappointed to not see any substantive discussion of new through-Delta conveyance as a component of the Draft Plan, nor any real attempt to incorporate the work that has been done as part of the Bay Delta Conservation Plan, including analysis of conveyance alternatives. New conveyance systems that allow for diversions to occur at a time and place when there is a lesser impact on the ecosystem is necessary to improve overall conditions in the Delta and address the Draft Plan's finding regarding entrainment impacts associated with the water projects; improved conveyance has been repeatedly recognized by leading experts in the area, including the Delta Vision process and the Public Policy Institute of California (PPIC), as a part of the solution to the Delta crisis. Improved conveyance likely requires an isolated through-Delta facility and increased storage capacity north and south of the Delta to better manage runoff and pumped water, and increased use of groundwater storage to mitigate inter-annual variability of supplies. In addition, the enhanced flexibility provided by new conveyance facilities would help to address the depletion of groundwater basins in the Central Valley.

In addition, the Delta Plan must address Delta water quality issues, including development of a plan for improved enforcement of existing water quality laws and regulations to address the problems associated with discharges from urban, agricultural, industrial and municipal sources upstream of and directly into the Delta. While the Draft Plan does include certain limited findings related to water quality, including a general statement related to increased toxicity and food web impacts as a result of contaminants discharged from various sources, these findings do not go far enough in terms of

describing and setting forth a plan to address water quality issues within the Delta. Future drafts of the Delta Plan should provide additional, detailed information on water quality issues in the Delta, including substantive discussion of impacts associated with urban stormwater discharges, agricultural runoff, and wastewater discharges in the Delta. In addition, the Delta Plan should contain specific actions to address these impacts and should take into account the current effort of the United States Environmental Protection Agency to more effectively address water quality problems in the Delta through its Advanced Notice of Proposed Rulemaking process. More detailed comments, including specific recommended changes to the findings are attached hereto as Attachment I.

In addition to addressing water quality issues in the Delta, the Delta Plan should also include measures related to invasive species. While the Draft Plan includes a finding regarding the impacts of non-native species on the quality of habitat available for non-native species (p. 6-6), there is a significant amount of scientific literature available on the impacts of non-native predators on native species in the Delta, which should be a component of the Delta Plan; as list of this literature is attached hereto as Attachment III.

Further, while we acknowledge there are opportunities for water conservation efforts in all sectors, we would like to direct the Council's attention to the recent report of the PPIC, *Managing California's Water*, which concludes that urban water conservation can have the greatest impact on improving overall water supplies, whereas agricultural water conservation practices most often result in reduced recharge of groundwater basins, thus resulting in little actual conservation benefit. While all water users should strive to use water in the most efficient manner possible, as acknowledged by the PPIC in its most recent report, agricultural water conservation often does not provide significant net water conservation benefits.

We remain confused about the connection between the Coastal Zone Management Act ("CZMA") and the Delta Plan. We request that the Council provide additional clarification about how the Delta Plan is intended to interact with the CZMA. The Delta Vision Strategic Plan recommended the CZMA as a regulatory mechanism to "ensure effective federal participation in state-level plans." Such an approach might have some merit but it is unclear how or why the Department of Commerce will review the Delta Plan pursuant to the CZMA and/or use the Delta Plan to "inform their decisions" (p. 2-4).

Finally, the Delta Plan must provide sufficient flexibility to address changing conditions both in and outside of the Delta. We look forward to reviewing the adaptive management section when it is ready for public review.

The Coalition appreciates the opportunity to comment on the Draft Plan. We hope you will consider our suggestions to ensure that rigorous scientific information supports management decisions under the Delta Plan.

Coalition for a Sustainable Delta

By: William D. Phillimore, President

Attachment I

Suggested Revisions to Water Quality Sections of Draft Delta Plan (March 9, 2011)

Draft Water Quality Findings, first staff draft of the Delta Plan (March 9 2011)
http://www.deltacouncil.ca.gov/docs/draft_delta_plan/Draft_WQ_Findings_Mar9_2011tm.pdf

The State Water Resources Control Board through direct actions and in coordination with the Regional Water Quality Control Boards, known collectively as The Water Boards, regulate point discharges from municipalities, industries, irrigated agricultural lands, and non-point discharges from open lands. The Water Boards issue National Pollutant Discharge Elimination System and Waste Discharge permits for municipalities and industries. These permits are reviewed and renewed periodically. The Water Boards regulate discharges from irrigated agricultural lands under the Irrigated Lands Regulatory Program. The Regional Water Quality Control Boards have issued conditional waivers of waste discharge requirements to growers that have not caused water quality objectives and do not require water quality monitoring.

Water quality in the Delta, especially salinity, is impacted by climatic conditions (freshwater inflows and drought cycles), upstream and in-Delta uses, tidal influences, and in-Delta and export diversions and operations. Water quality is better in the north Delta than in the central and southern Delta because the inflow in the Sacramento River is greater than from the streams that enter the Delta on the east (Cosumnes, Mokelumne, and Calaveras rivers) and in the San Joaquin River and because of agricultural drainage into the San Joaquin River. The State Water Resources Control Board has listed the Delta and San Francisco Bay as impaired under Section 303(d) of the Federal Clean Water Act. Contaminants of concern include: organophosphate pesticides (diazinon and chlorpyrifos), pyrethroid insecticides; carbamate pesticides (carbaryl and carbofuran); propanil, diuron and other herbicides; fungicides; elemental and methyl mercury; selenium; copper; polychlorinated biphenyls; polycyclic aromatic hydrocarbons; flame retardants; pharmaceuticals and personal care products; nutrients; and others. Additional water quality issues within the Delta include salinity, bromide, dissolved organic carbon compounds, dissolved oxygen, pathogens, turbidity, temperature, toxic algal blooms, and invasive species.

In 2010, the State Water Resources Control Board indicated that some of the most serious water quality problems in the Delta watershed and all of California are related to non-point source pollution. Therefore, the Water Boards have prioritized the processes to develop total maximum daily limit criteria on a statewide basis and eliminate the need to develop individual regional criteria. (SWRCB, 2010)

Findings

General

- Future western Delta water quality could reduce beneficial use for drinking water.
- Delta water quality is degraded and could impair beneficial use for drinking water.
- Future western Delta salinity could impair agricultural beneficial use.
- Water quality is degraded and could impair future beneficial use for the ecosystem habitat (CVRWQCB 2007, 2010a, 2010b, 2010d) and the aquatic species that depend on this habitat during their most sensitive life stages.

Agricultural Discharges

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• Pollutants from agricultural discharges have impaired many of California's surface and groundwater resources. (California Water Plan Update 2009, Volume 2, Chapter 17).

Salinity/Salt Management

• Seawater intrusion into the Delta impacts the quality of water exported from the Delta. (California Water Plan Update 2009, Volume 2, Chapter 18)

• California's natural and constructed conveyance systems are not optimized for salt management. (California Water Plan Update 2009, Volume 2, Chapter 18)

• Salt management in California has not kept up with emerging salt problems in many parts of the State. (California Water Plan Update 2009)

Urban Runoff

• Urban runoff presents a threat to both surface and groundwater quality. (California Water Plan Update 2009, Volume 2, Chapter 19)

• Efforts to address urban runoff are most effectively managed at the watershed scale. (California Water Plan Update 2009, Volume 2, Chapter 19)

Nutrients

• Contaminants discharged into the Delta from municipal, industrial, and agricultural sources have affected native species by altering the food webs, reducing food web productivity, and producing toxicity. (Based upon information included in CVRWQCB 2010 Resolution No. R5-2010-0079 and California Review in Fisheries Science 18:211-232, 2010)

• Excessive amounts of ammonium and nitrate, and the ratio of nitrogen to phosphorus, are having a negative effect on the productivity and species composition of phytoplankton in the Delta and stimulate growth of nuisance algae. (Wilkerson et al. 2006, Dugdale et al. 2007, Jassby 2008, and Glibert 2010)

• Ammonia concentrations in Delta waters have exceeded the criteria for freshwater organisms by up to ten-fold. (Johnson et al. 2010)

Dissolved Oxygen

• Dissolved oxygen levels drop below water quality objectives at locations within the Delta. (303d list)

Pesticides and Emerging Contaminants

• Approximately 50 percent of the highest-use pesticides (by weight) applied annually are not monitored in waterways.

• Most emerging pollutants, such as chemicals found in pharmaceuticals, personal care products, flame retardants, and plastics, have not been subject to rigorous assessment or regulatory action. (California Water Plan 2009 Update, Volume 2, Chapters 14, 15, and 17)

• New pesticides are approved for use without adequate consideration of potential impacts on aquatic species and ecosystems. (Kuivila and Hladik, 2008, Werner et al., 2008

Cyanobacterial blooms

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• Blooms of *Microcystis aeruginosa* produce several forms of a toxin that causes liver cancer in humans and fish.

Invasive species

• Dense infestations of invasive species such as *Egeria densa* (Brazilian waterweed) may cause fluctuations in water quality by trapping sediment and restrict water flow.

Ecosystem Restoration

• Restoring a healthy ecosystem may require developing a more natural salinity regime in parts of the Delta. (Moyle et al. 2010).

• Adverse habitat conditions (salinity, turbidity) can increase the susceptibility of aquatic species to contaminants. (Pistole et al. 2008)

Wastewater Infrastructure

• Much of California's wastewater treatment infrastructure has reached or exceeded its useful life expectancy. (California Water Plan Update 2009, Volume 2, Chapter 17).

Climate Change

• Climate models predict increased frequency of severe storms, which exacerbate contaminant loading from runoff, and warmer air temperatures, which increase susceptibility of aquatic species to contaminants, especially in cold-water fishes. (Morgan et al. 2001).

• Climate change will likely exacerbate existing water quality challenges. (California Water Plan Update 2009, Volume 2, Chapters 14 and 17.

Water Quality Exchanges

• Matching water quality to water use can result in reduced treatment costs and energy consumption. (California Water Plan Update 2009, Volume 2, Chapter 16)

Water Quality Management

• For most water quality contaminants, pollution prevention is more cost-effective than engineered treatment systems. (California Water Plan Update 2009, Volume 2, Chapter, 17).

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Attachment II
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Attachment III
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